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Serial No.: 09/700,293 Docket No.: BM45321

#### In the Specification:

Change 1: Please insert the following seven paragraphs into the specification at page3, line 26 as follows:

#### BRIEF DESCRIPTION OF THE DRAWINGS

Figures 1A-1E show consecutive segments of sequence alignment for two BASB029 polynucleotides, SEQ ID NO:1 and 3.

Figures 2A-2B show consecutive segments of sequence alignment for two BASB029 polypeptides, SEQ ID NO:2 and 4.

Figure 3 shows expression and purification of recombinant BASB029 in E. coli. A substantially purified BASB029 protein fraction (more than 80%) was separated on a 4-20% gradient polyacrylamide gel (NOVEX) under PAGE-SDS conditions in parallel to a protein molecular weight marker. Gels were either stained with Coomassie Blue R250 (lane 1) or analyzed by western blot using an anti-(His5) monoclonal antibody (lane 2).

Figure 4 shows recognition of the BASB029 protein on several NmB strains with BASB029 immunized mice sera.

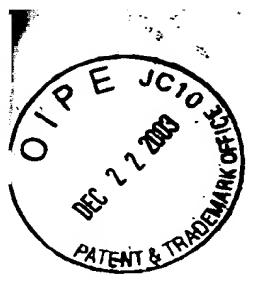
Figure 5 shows recognition of the BASB029 protein on several NmB strains with BASB029 immunized mice sera.

Figure 6 shows anti-BASB029 antibodies in convalescent sera (part B) and in immunized mice (part A).

Figure 7 shows anti-BASB029 antibodies in convalescent sera (part B) and in immunized mice (part A).

Change 2: Please insert the following paragraph at page 57, line 2:

What is claimed is:



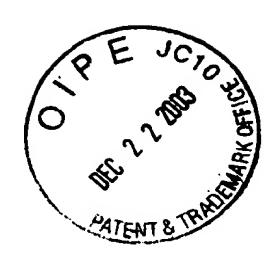




#### Figure 1A

Identity to SeqID No:1 is indicated by a dot, and a dash ("-") indicates a missing nucleotide.

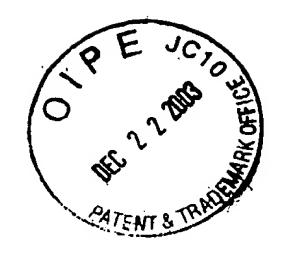
		* 20	*	40	*		
Seqidl :	:	ATGAACAAAATATACCGCATCATT	TGGAATAGTGO	CCTCAATGCC	TGGGT	: .	50
Segid3	:					:	50
•							
		60 *	80	*	100		
Segid1	:	CGCCGTATCCGAGCTCACACGCAA	CCACACCAAA	CGCGCCTCCGC	AACCG	:	100
_							100
-							
		* 120	*	140	*		
Segid1	:	TGGCGACCGCCGTATTGGCGACAC	TGTTGTTTGC	ACGGTTCAGG	CGAGT	:	150
-		AA					150
-							
		160 *	180	*	200		
Segid1	:	ACTACCGATGACGAC	GATTTATATT:	TAGAACCCGTA	CAACG	:	191
-		GA.AGAAGAGCAAAA					200
•							
		* 220	*	240	*		
Seqid1	:	CACTGCTGTCGTGTTGAGCTTCCG	TTCCGATAAA	SAAGGCACGGG	AGAAA	:	241
Seqid3	:	TCTAGAA				:	250
_							
		260 *	280	*	300		
Seqidl	:	AAGAAGTTACAGAAGATTCAA	ATTGGGGAGT	ATATTTCGACA	AGAAA	:	288
Seqid3	:	AAAAGAAG		AG		:	300
		* 320	*	340	*		
Seqidl	:	GGAGTACTAACAGCCGGAACAATC	ACCCTCAAAG	CCGGCGACAAC	CTGAA	:	338
Seqid3	:		••••••			:	350





#### Figur 1B

		360 * 380	*	400		
Seqid1	:	AATCAAACAAAACACCAATGAAAACACCAATGCCAG	ragetteacet	ACT	:	388
Seqid3	:		A.A		:	382
		* 420 *	440	*		
Seqidl	:	CGCTGAAAAAAGACCTCACAGATCTGACCAGTGTTG	SAACTGAAAAA	TTA	:	438
Seqid3	:				:	432
		460 * 480	*	500		
-		TCGTTTAGCGCAAACAGCAATAAAGTCAACATCACAA				488
Seqid3	:			• • •	:	482
•						
		* 520 *	540	*		
-		CTTGAATTTCGCGAAAAAAACGGCTGAGACCAACGG				538
Seqid3	:			• • •	:	532
		560 * 580	*	600		
Seci dl		ATCTGAACGGTATCGGTTCGACTTTGACCGATACGC			•	588
-		.CT				582
554145	•				•	
		* 620 *	640	*		
Seqidl	:	GCGACCACAACGTAACCAACGACAACGTTACCGAT	GACGAGAAAAA	ACG	:	638
Seqid3	:				:	632
			·			
		660 * 680	*	700		
-		TGCGGCAAGCGTTAAAGACGTATTAAACGCAGGCTG				688
Seqid3	:	•			:	682



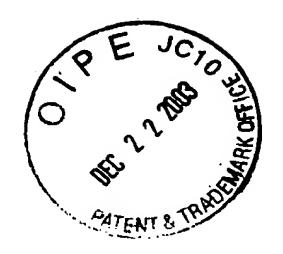
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#### Replacement Sheet

#### Figure 1C

•		* 720 * 740 *		
Seqid1	:	TTAAACCCGGTACAACAGCTTCCGATAACGTTGATTTCGTCCGCACTTAC	:	738
Seqid3	:		:	732
		760 * 780 * 800		
Seqid1	:	GACACAGTCGAGTTCTTGAGCGCAGATACGAAAACAACGACTGTTAATGT	:	788
Seqid3	:	• • • • • • • • • • • • • • • • • • • •	:	782
		* 820 * 840 *		
Segid1	:	GGAAAGCAAAGACAACGGCAAGAGAACCGAAGTTAAAATCGGTGCGAAGA	:	838
•			:	832
-				
		860 * 880 * 900		
•		CTTCTGTTATCAAAGAAAAAGACGGTAAGTTGGTTACTGGTAAAGACAAA		888
Seqia3	:		:	882
		* 920 * 940 *		
Seqidl	:	GGCGAGAATGATTCTTCTACAGACAAAGGCGAAGGCTTAGTGACTGCAAA	:	938
Seqid3	:		:	932
		960 * 980 * 1000		
Seqid1	:	AGAAGTGATTGATGCAGTAAACAAGGCTGGTTGGAGAATGAAAACAACAA	:	988
Seqid3	:		:	982
Sagid1		* 1020 * 1040 * CCGCTAATGGTCAAACAGGTCAAGCTGACAAGTTTGAAACCGTTACATCA	•	1030
<del>-</del>				
beqido	•		•	1032
		1060 * 1080 * 1100		
_		GGCACAAATGTAACCTTTGCTAGTGGTAAAGGTACAACTGCGACTGTAAG		
Segid3	:		:	1082



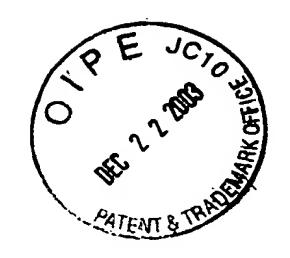
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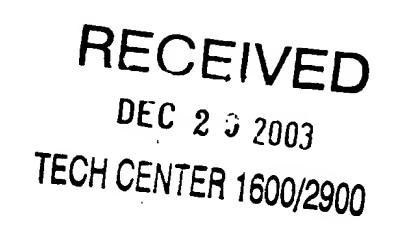
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#### Replacement Sheet

#### Figure 1D

		* 13	.20	*	1140	*	
Seqid1	:	TAAAGATGATCAAGGCAA	ACATCACTG	TTATGTATGA	TGTAAATGTC	GGCG:	1138
Seqid3	:		• • • • • • •			:	1132
		1160		1180	*	1200	
•		ATGCCCTAAACGTCAATC					
Seqid3	:	• • • • • • • • • • • • • • • • • • • •	• • • • • • • •		• • • • • • • • •	:	1182
			200	*	1040	*	
C 1 1			220		1240		1000
_		AAAGCGGTTGCAGGTTCT				•	
sedras	•						1232
						•	
		1260	*	1280	*	1300	
Seaidl	:	GAGCAAGGGAAAGATGGA			TGCCGGCAAC		1288
-							
- 1							
		* 13	320	*	1340	*	
Seqid1	:	TCGAGATTACCCGCAACC	GCAAAAAT	ATCGACATCG	CCACTTCGAT	GACC:	1338
Seqid3	:	• • • • • • • • • • • • • • • •	.т				1332
		1360	*	1380	*	1400	
Seqid1	:	CCGCAATTTTCCAGCGT	TCGCTCGG	CGCGGGGGCG	GATGCGCCCA	CTTT:	1388
Seqid3	:	G		• • • • • • • • •	• • • • • • • • •	• • • • •	1382
			120		1440	*	
		AAGCGTGGATGACGAGGG					
Seqid3	:	G	AA		A.G.A.	:	1429

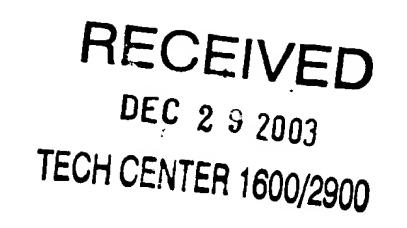




#### Figure 1E

		1460 *	1480	*	1500	
Seqidl	:	AACCCGTCCGCATTACCAATGTCG	CCCCGGGCGT'	TAAAGAGGGGG.	ATGTT:	1488
Seqid3	:				:	1479
		•				
		* 1520	*	1540	*	
Seqidl	:	ACAAACGTCGCACAACTTAAAGGC	GTGGCGCAAA	ACTTGAACAAC	CACAT :	1538
Seqid3	:				.G:	1529
		1560 *	1580	*	1600	•
Seqidl	:	CGACAATGTGGACGCCAACGCGCG	TGCGGGCATC	GCCCAAGCGAT	TGCAA :	1588
Seqid3	:				:	1579
		* 1620	*	1640	*	
Seqidl	:	CCGCAGGTCTGGTTCAGGCGTATC	CTGCCCGGCAA	GAGTATGATGG	CGATC :	1638
Seqid3	:				:	1629
		1660 *	1680	*	1700	
Seqid1	:	GGCGGCGCACTTATCGCGGCGAA	AGCCGGTTATG	CCATCGGCTAC	TCAAG:	1688
Seqid3	:				c.:	1679
-						
			·			
		* 1720	*	1740	*	
Seqid1	:	CATTTCCGACGCGGAAATTGGAT	TTATCAAAGGC	ACGGCTTCCGG	CAATT:	1738
Seqid3	:	T	· • • • • • • • • • • • • • • • • • • •			1729
-						
		1760 *	1780	*		
Seqidl	:	CGCGCGGCCATTTCGGTGCTTCCC	GCATCTGTCGG	TTATCAGTGGT	AA : 17	85
_						
-						





#### Figure 2A

Identity to SeqID No:2 is indicated by a dot, and a dash ("-") indicates a missing amino acid.

	* 20 * 40 *		
Seqid2 :	MNKIYRIIWNSALNAWVAVSELTRNHTKRASATVATAVLATLLFATVQAS	:	50
Seqid4:		:	50
	60 * 80 * 100		
Seqid2:	TTDDDDDLYLEPVQRTAVVLSFRSDKEGTGEKE-VTEDSNWGVYFDKK	:	96
Seqid4 :	ANNEEQEEDVAIVNK.EAE.	:	100
	* 120 * 140 *		
Seqid2 :	GVLTAGTITLKAGDNLKIKQNTNENTNASSFTYSLKKDLTDLTSVGTEKL	:	146
Seqid4:	REG.N	:	144
_			
	160 * 180 * 200		
Segid2:	SFSANSNKVNITSDTKGLNFAKKTAETNGDTTVHLNGIGSTLTDTLLNTG	:	196
	GEG		194
~ ~ 4			
	* 220 * 240 *		•
Seqid2:	ATTNVTNDNVTDDEKKRAASVKDVLNAGWNIKGVKPGTTASDNVDFVRTY	:	246
<b>-</b>			244
<b></b>			
	260 * 280 * 300		
Seqid2:	DTVEFLSADTKTTTVNVESKDNGKRTEVKIGAKTSVIKEKDGKLVTGKDK	•	296
<del>-</del> .		:	294
bedia.		•	251
	* 320 * 340 *		
Spaid? •	GENDSSTDKGEGLVTAKEVIDAVNKAGWRMKTTTANGQTGQADKFETVTS		346
-	GE		



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#### Figure 2B

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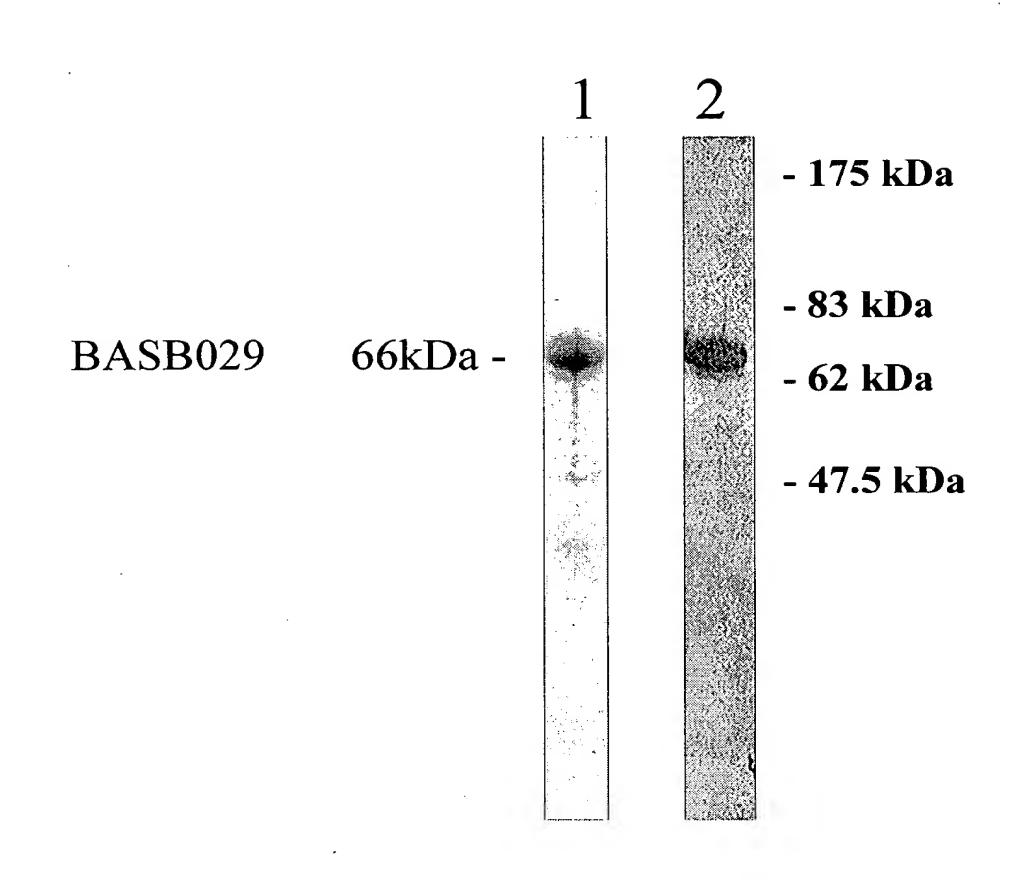
		360 *	380	*	400		
Seqid2	:	GTNVTFASGKGTTATVSKDDQG	NITVMYDVNVGDAI	LNVNQLQNS	GWNLDS	:	396
Seqid4	:					:	394
		* 420	*	440	*		
Seqid2	:	KAVAGSSGKVISGNVSPSKGKM	DETVNINAGNNIE	TRNGKNID	IATSMT	:	446
Seqid4	:					:	444
		460 *	480	*	500		
Seqid2	:	PQFSSVSLGAGADAPTLSVDDE	GALNVGSKDANKPV	/RITNVAPG	VKEGDV	:	496
-							493
		* 520	*	E 4 O	*		-
~ : 10	•	520		540			E 4 C
_		TNVAQLKGVAQNLNNHIDNVDG					
Seqid4	:	R			• • • • •	:	543
		560 *	580	*	·		
Seqid2	:	GGGTYRGEAGYAIGYSSISDGG	NWIIKGTASGNSR	GHFGASASV	'GYQW :	59	94
Segid4	•					59	91



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Figure 3

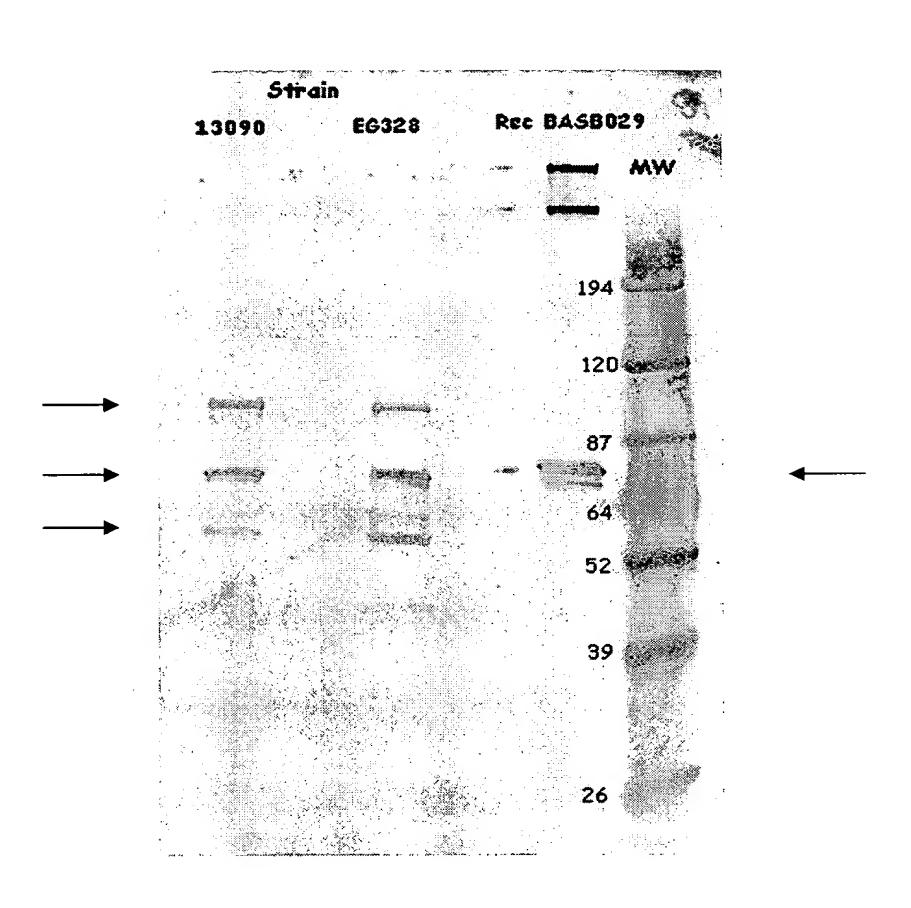


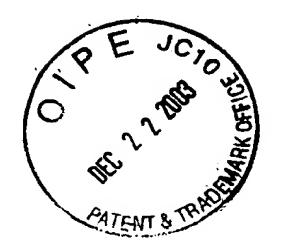


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#### Figure 4

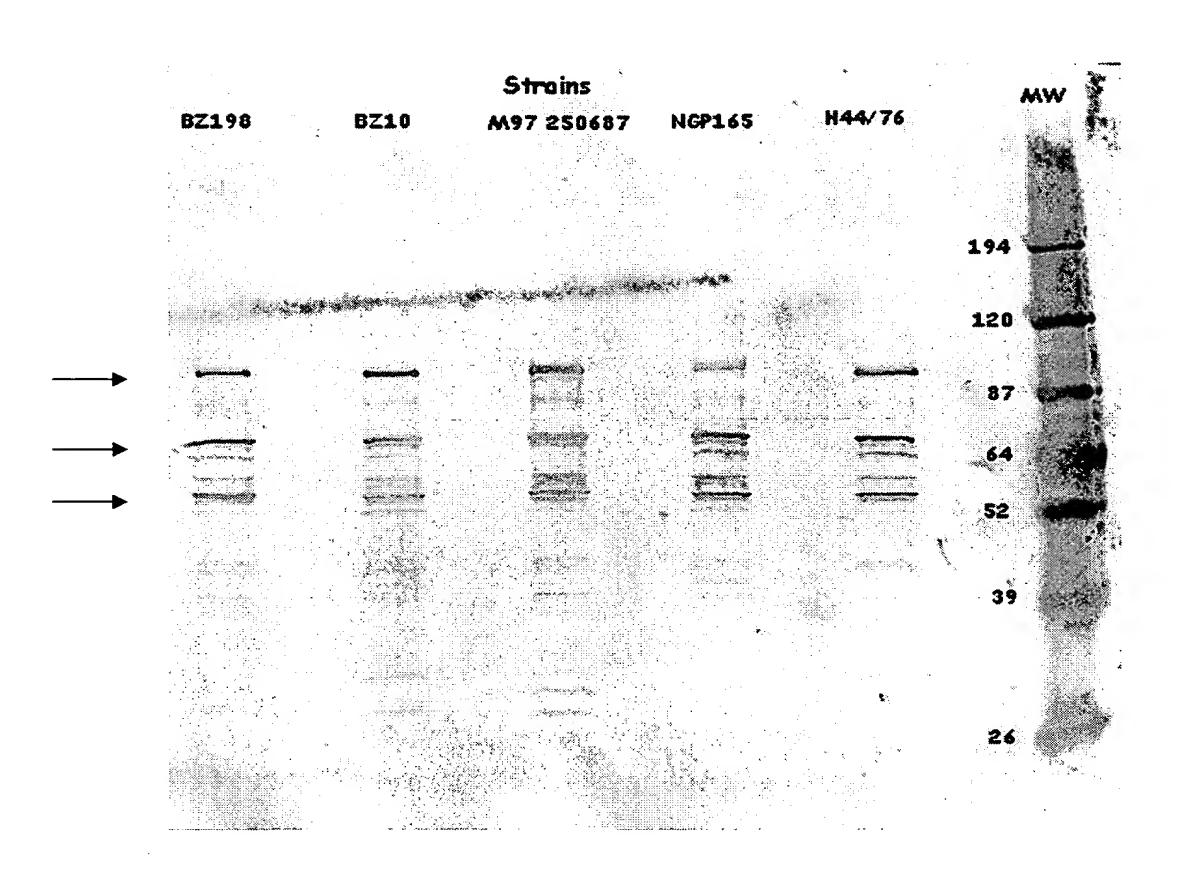


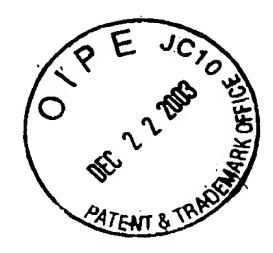


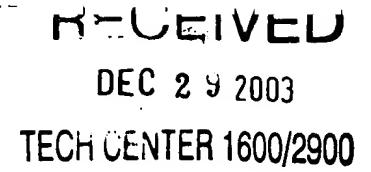
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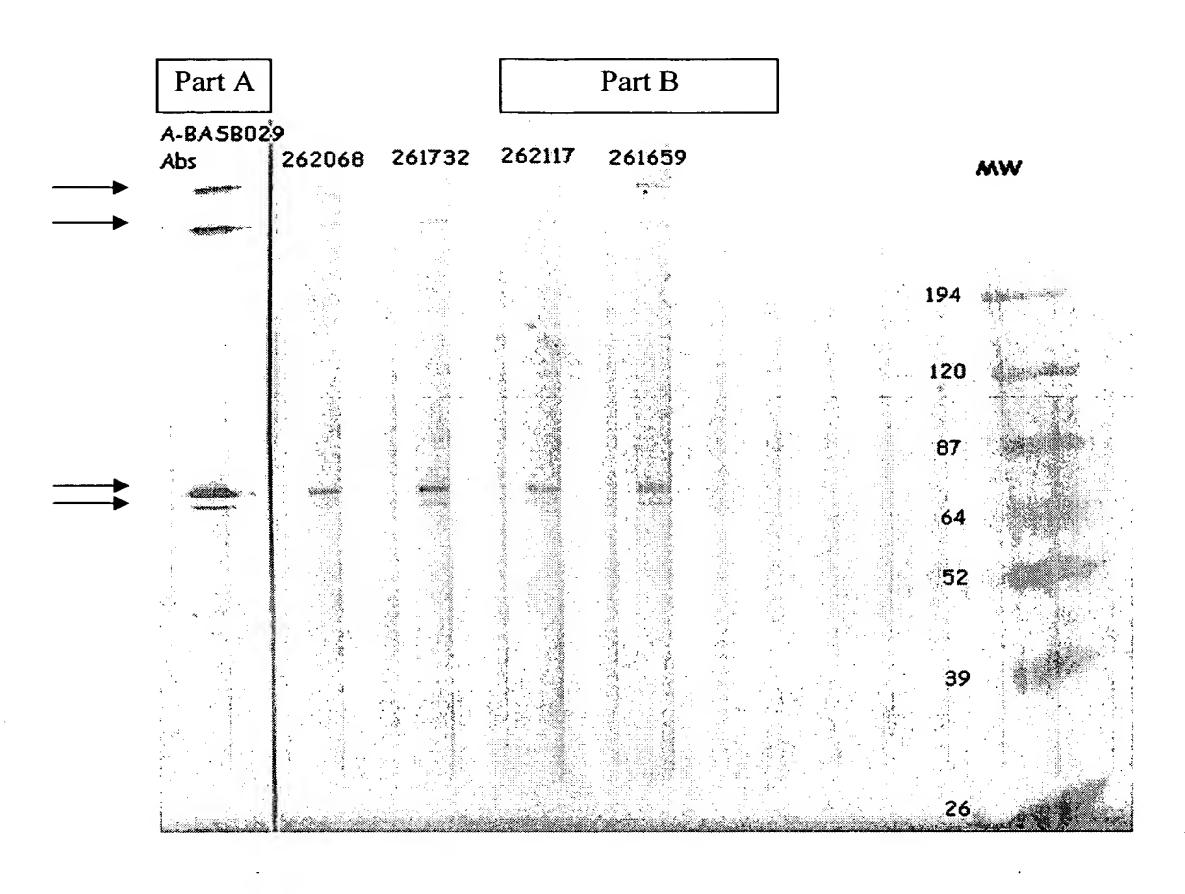
#### Figure 5







#### Figure 6





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Figure 7

